# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/603,691 | 06/26/2003 | Jean Dolbec | 15010-US | 2877 |

23553 7590 08/14/2006

MARKS & CLERK
P.O. BOX 957
STATION B
OTTAWA, ON K1P 5S7
CANADA

| EXAMINER | |
|---|---|
| TARANINA, MARINA Y | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2613 | |

DATE MAILED: 08/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/603,691 | DOLBEC ET AL. | |
| | Examiner | Art Unit | |
| | Marina Taranina | 2613 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *26 June 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Objections*

1. Claim 1 is objected to because of the following informalities: line 2 recites "**a** utilizing network..."). An "**a**" should be deleted. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Chang et al. (US 6,111,673).

(1) With respect to claim 1, Chang discloses a method of creating a lightpath between a source and a destination in an optical communications system (fig. 5) utilizing network management system (NMS) (220 in fig. 5) comprising:

selecting lightpath parameters (wavelengths of the link between 501 and 504, col. 11 lines 39-60);

selecting lightpath endpoints (ports) at the source (501 in fig. 5) and destination (504 in fig. 5) (col. 11 lines 34-37);

completing the lightpath through intermediate nodes (502, 503 in fig. 5) (col. 11 lines 47-60).

(2) With respect to claim 2, Chang discloses the method as defined in claim 1 wherein the lightpath is completed through intermediate nodes (502, 503 in fig. 5) using an automatic selection algorithm (by using global routing tables, col. 11 lines 37-47).

(3) With respect to claim 6, Chang discloses the method as defined in claim 1 wherein the step of selecting endpoints (ports) include the selection of particular intermediate nodes (502, 503 in fig. 5) that the lightpath will traverse (col. 11 lines 50-58).

4. Claims 10-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Nelles et al. (US 7,047,496).

(1) With respect to claim 10, Nelles discloses a network management system (NMS) (200 in fig. 3a) for creating a lightpath between a source and a destination in an optical communication system (fig. 3a), the NMS comprising:

means for viewing (graphical display 200 in fig. 3a) and selecting (user interface dialog box 234 in fig. 3b) lightpath parameters (channel attributes in fig. 3b and 5) (col. 5 lines 22-31);

means for viewing (graphical display 10 in fig. 1a) and selecting (user interface dialog boxes 34 and 50 in fig. 1b) lightpath endpoints at the source (node A in fig. 1a) and destination (node D in fig. 1a) (col. 4 lines 38-43);

means for completing the lightpath (highlighting) through intermediate nodes (nodes B and C in fig. 1a) (col. 4 lines 34-40).

(2) With respect to claim 11, Nelles discloses the NMS as defined in claim 10 having a graphical user interface (GUI) for displaying lightpath parameters (graphical display 10 in fig. 1a) and input means for selecting (user interface dialog boxes 34 and 50 in fig. 1b).

(3) With respect to claim 12, Nelles discloses the NMS as defined in claim 11 wherein an operator can manually complete (highlight) the lightpath (col. 4 lines 38-44).

5. Claims 1-4, 6-8 and 10-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Walters et al. (US 2002/0176131).

(1) With respect to claim 1, Walters discloses a method of creating a lightpath between a source and a destination in an optical communications system (fig. 30) utilizing network management system (NMS) (3045 in fig. 30) comprising:

selecting lightpath parameters (wavelengths, page 20 para 0304 line 12)

selecting lightpath endpoints at the source and destination (page 20 para 0304 lines 6-8);

completing the lightpath through intermediate nodes (TP ports) (page 20 para 0304 lines 10-11, para 0305 lines 8-11).

(2) With respect to claim 2, Walters discloses the method as defined in claim 1 wherein the lightpath is completed through intermediate nodes using an automatic

selection algorithm (link-state algorithm, page 16, para 0248 lines 1-5, para 0249 lines 5-10).

(3) With respect to claim 3, Walters discloses the method as defined in claim 1 wherein the lightpath is completed through intermediate nodes using a manual selection process (page 20 para 0304 lines 6-8).

(4) With respect to claim 4, Walters discloses the method as defined in claim 1 wherein the lightpath is completed using a combination of an automatic selection algorithm and a manual selection process (page 20 para 0304 lines 8-10).

(5) With respect to claim 6, Walters discloses the method as defined in claim 1 wherein the step of selecting endpoints include the selection of particular intermediate nodes that the lightpath will traverse (page 20 para 0304 lines 4-6, also fig. 33a, 33c, page 19, para 0290, 0292).

(6) With respect to claim 7, Walters discloses the method as defined in claim 1 wherein the step of selecting endpoints includes the selection of wavelengths for the lightpath (page 16, para 0248).

(7) With respect to claim 8, Walters discloses the method as defined in claim 7 wherein the selection of wavelengths is implementable at intermediate nodes (page 16 para 0249 lines 8-10, para 0251 lines 6-13).

(8) With respect to claim 10, Walters discloses a network management system (NMS) for creating a lightpath between a source and a destination in an optical communication system (fig. 30), the NMS comprising:

means for viewing (topology manager 3440 and GUI 3405 in fig. 34) and selecting lightpath parameters (connection manager 3430, page 20 para 0304 lines 1-4 and 12, page 26 para 0398);

means for viewing and selecting lightpath endpoints at the source and destination (topology manager 3440 and GUI 3405 in fig. 34, page 20 para 0305);

means for completing the lightpath through intermediate nodes (configuration manager 3425, connection manager 3430 and GUI 3405, page 20, para 0305 lines 8-13).

(9) With respect to claim 11, Walters discloses the NMS as defined in claim 10 having a graphical user interface (GUI) for displaying lightpath parameters (3405 in fig. 34) and input means for selecting (point and click configuration, page 20, para 0303 lines7-9).

(10) With respect to claim 12, Walters discloses the NMS as defined in claim 11 wherein an operator can manually complete the lightpath (page 20 para 0304 lines 6-8).

(11) With respect to claim 13, Walters discloses the NMS as defined in claim 11 for implementing an automatic selection algorithm to automatically complete the lightpath (link-state algorithm, page 16, para 0248 lines 1-5, para 0249 lines 5-10).

(12) With respect to claim 14, Walters discloses the NMS as defined in claim 11 wherein the lightpath is completed utilizing manual selection and an automatic selection algorithm (page 20 para 0304 lines 8-10).

6. Claims 1-6 and 10-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Rochford et al. (US 6,654,803).

(1) With respect to claim 1, Rochford discloses a method of creating a lightpath between a source and a destination in an optical communications system (col. 5, lines 58-64) utilizing network management system (NMS) (10 in fig. 1) comprising: selecting lightpath parameters (fig. 3, col. 7 lines 35-37, col. 8 lines 28-38); selecting lightpath endpoints at the source and destination (col. 13 lines 61-65, col. 14 lines 4-12); completing the lightpath through intermediate nodes (col. 16 lines 16-20).

(2) With respect to claim 2, Rochford discloses the method as defined in claim 1 wherein the lightpath (route) is completed through intermediate nodes (col. 16 lines 16-20) using an automatic selection algorithm ("separate application" – col. 13 line 65, col. 15 lines 7-21).

(3) With respect to claim 3, Rochford discloses the method as defined in claim 1 wherein the lightpath is completed through intermediate nodes (col. 16 lines 16-20) using a manual selection process (col. 13 lines 61-64).

(4) With respect to claim 4, Rochford discloses the method as defined in claim 1 wherein the lightpath is completed using a combination of an automatic selection algorithm ("separate application" – col. 13 line 65, col. 15 lines 7-21) and a manual selection process (col. 8 lines 24-28, 41-44, col. 13 lines 61-64).

(5) With respect to claim 5, Rochford discloses the method as defined in claim 1 wherein lightpath parameters include: lightpath name, protocol, bit rate (col. 7 lines 35-

37, col. 8 lines 28-38), source node lambda end point and destination node lambda end-point (identification of the nodes and links - col. 14 lines 5-12).

(6) With respect to claim 6, Rochford discloses the method as defined in claim 1 wherein the step of selecting endpoints (222 and 224 in fig. 3) include the selection of particular intermediate nodes (232, 242, 252 in fig. 3) that the lightpath will traverse (col. 16 lines 16-21).

(7) With respect to claim 10, Rochford discloses a network management system (NMS) (10 in fig. 1) for creating a lightpath between a source and a destination in an optical communication system (col. 5, lines 58-64), the NMS comprising:

means for viewing and selecting lightpath parameters (21, 22, 23, 24 in fig. 1 and 282 in fig. 5, col. 8 lines 24-28);

means for viewing and selecting lightpath endpoints at the source and destination (21, 22, 23, 24 in fig. 1 and 296 in fig. 9, col. 8 lines 41-44);

means for completing the lightpath through intermediate nodes (col. 13, lines 61-65, col. 15, lines 7-20, col. 16 lines 11-21).

(8) With respect to claim 11, Rochford discloses the NMS as defined in claim 10 having a graphical user interface (GUI) for displaying lightpath parameters (21, 24 in fig. 1 and 282 in fig. 5) and input means for selecting (22, 23 in fig. 1) (col. 8 lines 24-28).

(9) With respect to claim 12, Rochford discloses the NMS as defined in claim 11 wherein an operator can manually complete the lightpath (col.13 line 65).

(10) With respect to claim 13, Rochford discloses the NMS as defined in claim 11 for implementing an automatic selection algorithm (separate application) to automatically complete the lightpath (col. 13 line 65, col. 21 lines 17-20).

## *Claim Rejections - 35 USC § 103*

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 9 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walters et al. (US 2002/0176131) in view of Nelles et al. (US 7,047,496).

(1) With respect to claim 9 (9/2/1), Walters discloses all the subject matter as recited in Claims 2 and 1, and further teaches the method wherein after the lightpath has been selected automatically, some or all of the wavelengths in the lightpath maybe rejected; and for some or all of the wavelengths in the lightpath different wavelengths may be selected (page 18, table in para 0280, page 31, table 12). Walters fails to teach that an operator may reject and select different wavelengths for some or all of the wavelengths in the lightpath.

However, Nelles teaches a method where a user can choose and manipulate lightpath parameters (channels and channel attributes by selecting/unselecting checkboxes 238, 266, 270, 252, 254, 256, 258 in the display 200 in Fig. 3, col. 5 lines 22-31).

It is desirable if user is able to modify lightpath parameters while managing optical network systems. It allows operation flexibility and simplifies the system design and reconfiguration. It can also serve as a back up mechanism in case the automatic means for changing lightpath parameters have failed. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Network management system of Walters by applying a method for manipulating lightpath parameters as taught by Nelles as to allow operation flexibility and simplicity to the system design and reconfiguration.

(2) With respect to claim 15 (15/13/10), Walters discloses all the subject matter as recited in Claims 10 and 13, and further teaches the NMS wherein, after the lightpath has been selected automatically, lightpath parameters can be changed (page 18, table in para 0280, page 31, table 12). Walters fails to teach that a user can change lightpath parameters.

However, Nelles teaches a method where a user can manipulate lightpath parameters (channel attributes by selecting checkboxes in a dialog box of a display – Fig. 7, col. 7 lines 1-13).

It is desirable if user is able to modify lightpath parameters while managing optical network systems. It allows operation flexibility and simplifies the system design and reconfiguration. It can also serve as a back up mechanism in case the automatic means for changing lightpath parameters have failed. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify

the Network management system of Walters by applying a method for manipulating lightpath parameters as taught by Nelles as to allow operation flexibility and simplicity to the system design and reconfiguration.

(3) With respect to claim 16 (16/15/13/10), Walters discloses the NMS as defined in claim 15 wherein lightpath parameters include wavelengths on a complete lightpath (page 16 para 0248, lines 5-8).

(4) With respect to claim 17 (17/15/13/10), Walters discloses the NMS as defined in claim 15 wherein wavelengths can be changed for lightpath segments (capability of changing bandwidth parameters, page 18, para 0279, table in para 0280, line 2).

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6,636,239 discloses method of operating a GUI to selectively enable and disable a datapath in a network;

US 2002/0154357 discloses methods and apparatus for reconfigurable WDM lightpath rings;

US 6,631,134 discloses Method for allocating bandwidth in an optical network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Taranina whose telephone number is 571 270 1085. The examiner can normally be reached on Mon-Fri (alternative Fri off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on 571 272 2600. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MT
03 Aug 2006

SHUWANG LIU
SUPERVISORY PATENT EXAMINER